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## WHAT IS CLAIMED IS:

1. A user terminal comprising:  
a receiver adapted to receive, at the user terminal, a broadcast digital television signal  
transmitted by a television transmitter and comprising a pseudo-noise code; and  
5 a controller adapted to generate a pseudorange based on the pseudo-noise code;  
wherein the location of the user terminal is determined based on the pseudorange and  
a location of the television transmitter.
2. The user terminal of claim 1, wherein the broadcast digital television signal is  
10 an American Television Standards Committee (ATSC) digital television signal.
3. The user terminal of claim 2, wherein the pseudonoise code is a Global  
Positioning System L5 code.
- 15 4. The user terminal of claim 1, further comprising:  
a processor adapted to determine the location of the user terminal based on the  
pseudorange and the location of the identified television transmitter.
- 20 5. The user terminal of claim 1, further comprising:  
a time-gated delay-lock loop adapted to track the broadcast digital television signal.
6. A user terminal comprising:  
a receiver adapted to receive, at the user terminal, a broadcast digital television signal  
transmitted by a television transmitter and comprising a pseudonoise code; and  
25 a controller adapted to generate a pseudorange based on the broadcast digital  
television signal, and to identify the television transmitter based on the pseudonoise code;  
wherein the location of the user terminal is determined based on the pseudorange and  
a location of the identified television transmitter.
- 30 7. The user terminal of claim 6, wherein the broadcast digital television signal is  
an American Television Standards Committee (ATSC) digital television signal.

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8. The user terminal of claim 7:

wherein the controller generates the pseudorange based on a known digital sequence comprising at least one of

the pseudonoise code;

a Field Synchronization Segment within an ATSC data frame, and

a Synchronization Segment within a Data Segment within an ATSC data frame.

9. The user terminal of claim 7, wherein the pseudonoise code is a Global Positioning System L5 code.

10. The user terminal of claim 6, further comprising:

a processor adapted to determine the location of the user terminal based on the pseudorange and the location of the identified television transmitter.

11. The user terminal of claim 6, further comprising:

a time-gated delay-lock loop adapted to track the broadcast digital television signal.

12. A user terminal comprising:

receiver means for receiving, at the user terminal, a broadcast digital television signal transmitted by a television transmitter and comprising a pseudo-noise code; and

controller means for generating a pseudorange based on the pseudo-noise code;

wherein the location of the user terminal is determined based on the pseudorange and a location of the television transmitter.

13. The user terminal of claim 12, wherein the broadcast digital television signal is an American Television Standards Committee (ATSC) digital television signal.

14. The user terminal of claim 13, wherein the pseudonoise code is a Global Positioning System L5 code.

15. The user terminal of claim 12, further comprising:  
processor means for determining the location of the user terminal based on the  
pseudorange and the location of the identified television transmitter.

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16. A user terminal comprising:  
receiver means for receiving, at the user terminal, a broadcast digital television signal  
transmitted by a television transmitter and comprising a pseudonoise code; and  
controller means for generating a pseudorange based on the broadcast digital  
10 television signal, and to identify the television transmitter based on the pseudonoise code;  
wherein the location of the user terminal is determined based on the pseudorange and  
a location of the identified television transmitter.

17. The user terminal of claim 16, wherein the broadcast digital television signal  
15 is an American Television Standards Committee (ATSC) digital television signal.

18. The user terminal of claim 17:  
wherein the controller means generates the pseudorange based on a known digital  
sequence comprising at least one of  
20 the pseudonoise code;  
a Field Synchronization Segment within an ATSC data frame, and  
a Synchronization Segment within a Data Segment within an ATSC data  
frame.

19. The user terminal of claim 17, wherein the pseudonoise code is a Global  
25 Positioning System L5 code.

20. The user terminal of claim 16, further comprising:  
processor means for determining the location of the user terminal based on the  
30 pseudorange and the location of the identified television transmitter.

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21. A method comprising:  
receiving, at a user terminal, a broadcast digital television signal transmitted by a  
television transmitter and comprising a pseudo-noise code; and  
generating a pseudorange based on the pseudo-noise code;  
5 wherein the location of the user terminal is determined based on the pseudorange and  
a location of the television transmitter.

22. The method of claim 21, wherein the broadcast digital television signal is an  
American Television Standards Committee (ATSC) digital television signal.

10 23. The method of claim 22, wherein the pseudonoise code is a Global  
Positioning System L5 code.

24. The method of claim 21, further comprising:  
15 determining the location of the user terminal based on the pseudorange and the  
location of the identified television transmitter.

25. A method comprising:  
receiving, at a user terminal, a broadcast digital television signal transmitted by a  
20 television transmitter and comprising a pseudonoise code;  
generating a pseudorange based on the broadcast digital television signal; and  
identifying the television transmitter based on the pseudonoise code;  
wherein the location of the user terminal is determined based on the pseudorange and  
a location of the identified television transmitter.

25 26. The method of claim 25, wherein the broadcast digital television signal is an  
American Television Standards Committee (ATSC) digital television signal.

27. The method of claim 26:  
30 wherein the pseudorange is generated based on a known digital sequence comprising  
at least one of

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the pseudonoise code;  
a Field Synchronization Segment within an ATSC data frame, and  
a Synchronization Segment within a Data Segment within an ATSC data  
frame.

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28. The method of claim 26, wherein the pseudonoise code is a Global  
Positioning System L5 code.

29. The method of claim 25, further comprising:  
10 determining the location of the user terminal based on the pseudorange and the  
location of the identified television transmitter.

30. Computer-readable media embodying instructions executable by a computer  
to perform a method comprising:  
15 receiving, at a user terminal, a broadcast digital television signal transmitted by a  
television transmitter and comprising a pseudo-noise code; and  
generating a pseudorange based on the pseudo-noise code;  
wherein the location of the user terminal is determined based on the pseudorange and  
a location of the television transmitter.

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31. The media of claim 30, wherein the broadcast digital television signal is an  
American Television Standards Committee (ATSC) digital television signal.

32. The media of claim 31, wherein the pseudonoise code is a Global Positioning  
25 System L5 code.

33. The media of claim 30, wherein the method further comprises:  
determining the location of the user terminal based on the pseudorange and the  
location of the identified television transmitter.

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34. Computer-readable media embodying instructions executable by a computer to perform a method comprising:

receiving, at a user terminal, a broadcast digital television signal transmitted by a television transmitter and comprising a pseudonoise code;

5 generating a pseudorange based on the broadcast digital television signal;

identifying the television transmitter based on the pseudonoise code;

wherein the location of the user terminal is determined based on the pseudorange and a location of the identified television transmitter.

10 35. The media of claim 34, wherein the broadcast digital television signal is an American Television Standards Committee (ATSC) digital television signal.

36. The media of claim 35:

15 wherein the pseudorange is generated based on a known digital sequence comprising at least one of

the pseudonoise code;

a Field Synchronization Segment within an ATSC data frame, and

a Synchronization Segment within a Data Segment within an ATSC data frame.

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37. The media of claim 35, wherein the pseudonoise code is a Global Positioning System L5 code.

38. The media of claim 34, wherein the method further comprises:

25 determining the location of the user terminal based on the pseudorange and the location of the identified television transmitter.